

XXXII.—On the Use of the Term "Homology."

By E. RAY LANKESTER.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,

Whilst acknowledging with pleasure Mr. St. George Mivart's recent paper "On the Use of the Term 'Homology,'" I think that I cannot have been sufficiently clear as to the use of the term homogeny in my own article, since he speaks of "ancestral" and "developmental" homogeny. I proposed to signify by "homogeny" simply what he terms "ancestral homogeny." Structures which he would call "developmental homogens," if they are not also ancestral homogens, do not come under my term homogen at all, but are homoplasts. The fact of the absence of ancestral relation at once removes them from the category of homogens. The individual cranial bones of man are not all homogenous, each for each, with those of the osseous fish: but they are homoplastic; *i. e.* conditions other than direct heredity have determined a close agreement of arrangement.

The similarity of the development of so-called homologous parts in two individuals, if it is not considered to be due to homogeny (that is, ancestral community) renders the homoplasmy the more remarkable, but does not require the term "developmental homogeny," which, indeed, seems to be an impossible one by the definition of homogeny.

As Mr. Mivart remarks with regard to the imaginal disks of Diptera, it is by no means a constant rule that we find the ancestral epitomized in the individual development of an organism. It is certainly never completely epitomized; and the cases in which it is so to any extent are rare, and of proportionate interest. Here and there in the individual development of organisms we find traces of the epitomized ancestral development; but a large number of the appearances presented in individual development are referable to the immediate relations of the organism to its conditions of existence; and in this way whole pages of history are blotted out or reduced to an indecipherable pulp in order to suit present conditions.

If I do not misunderstand him, what Mr. Mivart would call developmental homogens when not true homogens should be called developmental homoplasts; *i. e.*, not only when complete, but in their mode of development, they present an agreement which is not due directly to heredity.

I remain, Gentlemen,

Truly yours,

E. RAY LANKESTER.